ABSTRACT

One type of shrimp that has the potential to be developed is vaname shrimp (Litopenaeus vannamei). Hatching eggs in production is important because it supports the availability of vaname shrimp fry. Giving mangrove leaf extract (Avicennia marina) to vaname shrimp eggs can prevent the appearance of fungus that sticks to vaname shrimp eggs. This research aims to determine the effect of mangrove leaf extract (Avicennia marina) on the hatchability of vaname shrimp (Litopenaeus vannamei) eggs. This research was carried out on 21 October - 22 November 2023 at PT. Swadaya Mitra Perkasa, Ujong Blang Aron Village, Kuala District, Bireun Regency. This research uses an experimental method with a non-factorial Completely Randomized Design (CRD). This study consisted of 5 treatments with 3 repetitions, namely, treatment A (control), treatment B (40 ppm/L), treatment C (50 ppm/L), treatment D (60 ppm/L), and treatment E (70 ppm/L). Statistical analysis of the F test (ANOVA) showed that administration of mangrove leaf extract at different doses had a significant effect on the percentage of fungal attack resistance, egg hatchability, and survival rate of vaname shrimp larvae, but did not significantly differ on the increase in length of vaname shrimp larvae. The highest egg hatchability was in treatment C, namely 85.83% and the highest larval survival rate was in treatment C, namely 94.54%.

Key words: Hatchability of eggs, mangrove leaves, vaname shrimp

ABSTRAK

Salah satu jenis udang yang cukup potensial dikembangkan adalah udang vaname *(Litopenaeus vannamei).* Penetasan telur pada produksi penting dilakukan karena untuk menunjang ketersediaan benur udang vaname. Pemberian ekstrak daun mangrove *(Avicennia marina)* pada telur udang vaname dapat mencegah timbulnya jamur yang menempel pada telur udang vaname. Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak daun mangrove *(Avicennia marina)* terhadap daya tetas telur udang vaname (*Litopenaeus vannamei*). Penelitian ini dilaksanakan pada tanggal 21 oktober- 22 november 2023 yang bertempat di PT. Swadaya Mitra Perkasa, Desa Ujong Blang Aron, Kecamatan Kuala, Kabupaten Bireun. Penelitian ini menggunakan metode eksperimen dengan Rancangan Acak Lengkap (RAL) non-faktorial. Pada penelitian ini terdiri dari 5 perlakuan 3 kali ulangan yaitu, perlakuan A (kontrol), perlakuan B (40 ppm/L), perlakuan C (50 ppm/L), perlakuan D (60 ppm/L), dan perlakuan E (70 ppm/L). Analisis statistik uji F (ANOVA) menunjukkan bahwa pemberian ekstrak daun mangrove dengan dosis yang berbeda berpengaruh nyata terhadap persentase daya tahan serangan jamur, daya tetas telur, dan tingkat kelangsungan hidup larva udang vaname, namun tidak berbeda nyata terhadap pertambahan panjang larva udang vaname .Nilai daya tetas telur tertinggi terdapat pada perlakuan C yaitu 85,83% dan tingkat kelangsungan hidup larva tertinggi terdapat pada perlakuan C yaitu 94,54%.

Kata Kunci : *Daun mangrove, Daya tetas telur Udang vaname*